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### (54) Alkaline earth-manganese oxide pigments

(57) Alkaline earth-manganese oxides are used as pigments. The alkaline earth-manganese oxide pigments are preferably of the formula  $Me_xMnO_y$ , where Me is at least one metal selected from Ca, Sr, Ba and Mg, x is from 0.01 to 99, and y is greater than or equal to  $x + 1$  and less than or equal to  $x + 2$ . The pigments are useful as colorants, and also possess improved re-

flectance characteristics, particularly in the IR region, and may reduce IR-induced heat buildup. These colorants can be used to form colored objects, or coat objects when they are either added into or applied onto materials such as paints, inks, plastics, glasses, ceramics and the like. The patent also covers the production of these pigments.

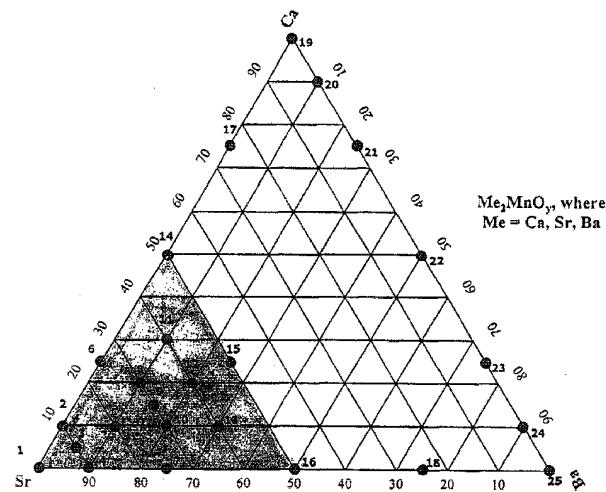


FIG. 1

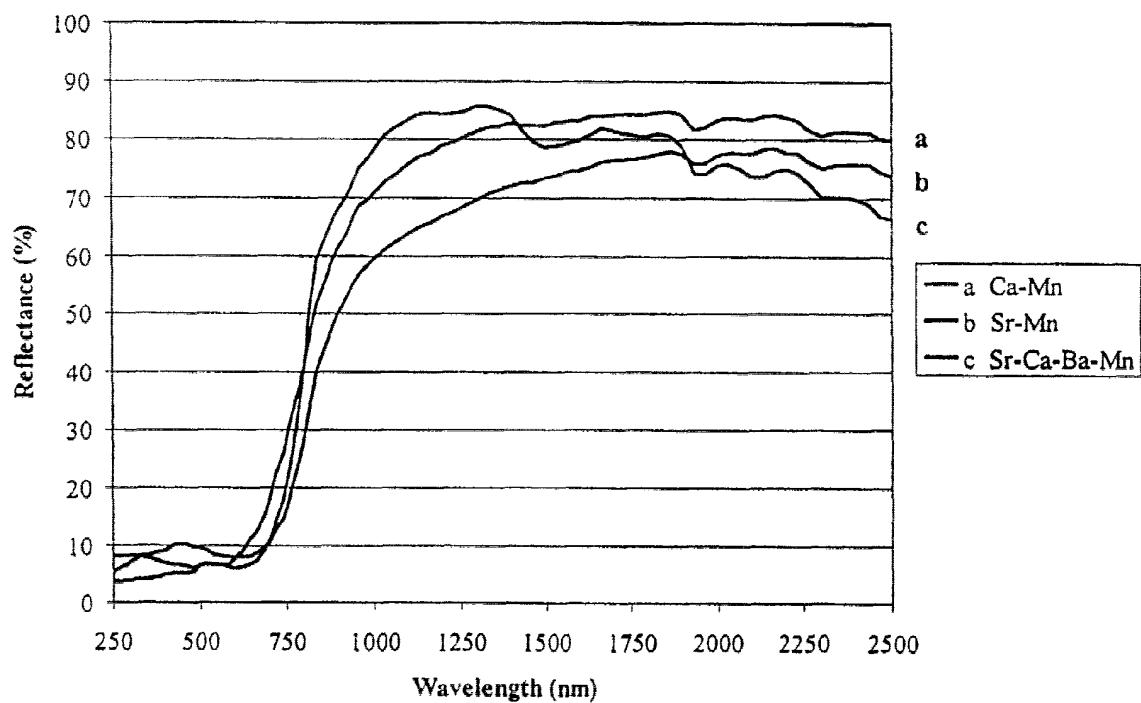


FIG. 8



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## EUROPEAN SEARCH REPORT

Application Number  
EP 00 12 3846

| DOCUMENTS CONSIDERED TO BE RELEVANT  |  |                   | CLASSIFICATION OF THE APPLICATION (Int.Cl.7) |
|--|--|-------------------|--|
| Category   | Citation of document with indication, where appropriate, of relevant passages  | Relevant to claim |  |
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| The present search report has been drawn up for all claims   |  |                   |  |
| Place of search  | Date of completion of the search   |                   | Examiner                                     |
| THE HAGUE  | 9 December 2002  |                   | Siebel, E                                    |
| CATEGORY OF CITED DOCUMENTS  |  |                   |  |
| <p>X: particularly relevant if taken alone<br/>Y: particularly relevant if combined with another document of the same category<br/>A: technological background<br/>O: non-written disclosure<br/>P: intermediate document</p> <p>T: theory or principle underlying the invention<br/>E: earlier patent document, but published on, or after the filing date<br/>D: document cited in the application<br/>L: document cited for other reasons<br/>&amp;: member of the same patent family, corresponding document</p> |  |                   |  |



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## EUROPEAN SEARCH REPORT

Application Number  
EP 00 12 3846

| DOCUMENTS CONSIDERED TO BE RELEVANT  |   |   |  |
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|  |   |   | TECHNICAL FIELDS<br>SEARCHED (Int.Cl.7)      |
|  |   |   |  |
| <p>The present search report has been drawn up for all claims</p>  |   |   |  |
| Place of search<br><br>THE HAGUE   | Date of completion of the search<br><br>9 December 2002   | Examiner<br><br>Siebel, E   |  |
| CATEGORY OF CITED DOCUMENTS  |   | <p>T : theory or principle underlying the invention<br/>E : earlier patent document, but published on, or<br/>after the filing date<br/>D : document cited in the application<br/>L : document cited for other reasons<br/>&amp; : member of the same patent family, corresponding<br/>document</p> |  |
| <p>X : particularly relevant if taken alone<br/>Y : particularly relevant if combined with another<br/>document of the same category<br/>A : technological background<br/>O : non-written disclosure<br/>P : intermediate document</p> |   |   |  |

ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

EP 00 12 3846

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09-12-2002

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| US 4388294                                | A | 14-06-1983          | NONE |                            |                     |